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STANDARDS OF LABOR ON THE HILL FARMS OF LOUISIANA.

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CONTENTS.

	Page.
Introduction	1
Scope and method of study	2
Summary of results	2
Significance of crew duty and labor requirements	4
Soil preparation	5
Operations on individual crops	10

INTRODUCTION.

This bulletin is a statement of the prevailing standards of labor for crews of various sizes at field and crop work and the labor requirements of crops per acre for the hill sections of Louisiana. Though the data presented are strictly applicable only to that locality, it is believed that they will apply in large measure to the upland portions of the other Cotton Belt States where types of farming, implements used, kind of labor employed, and character of soil are similar. In making this statement the intention is not to convey the idea that conditions in all of these localities are uniform, but that such differences as there are in soil, topography, kind of labor used, weeds, etc., are not sufficient to affect materially the amount of work done per day or the labor requirements per acre. The climate throughout these States varies so little that the season and time available for a given operation are about the same throughout the region, except that the season is a little earlier or a little later as one goes south or north of the area surveyed.

It is believed that the information in the following pages will be of great help in replanning a farm or in readjusting crop acreages so as to utilize better both man and animal labor, or in determining the kind and sizes of new machinery to purchase. It should also be an

aid in planning the year's work, especially in determining how large an acreage can be handled by a given crew at the busiest season of the year, or how much extra help will be needed at a given time. It is understood, of course, that no plans or work schedules which may be worked out from this information can be followed blindly without reference to variations in weather and other conditions.

SCOPE AND METHOD OF STUDY.

The data for this bulletin were obtained by personally interviewing several hundred farmers in the hill section of Louisiana. From these men there were obtained 677 detailed reports on the principal crops grown. These reports cover all the operations performed on each crop, the size of crew, the implements used, and the farmer's estimate of the acreage.

The area in which the data were collected is the northwest quarter of the State of Louisiana. The climate is warm and even, the growing season extending from about March 1 to November 5, or usually about 250 days. The rainfall averages about 45 inches, and is well distributed throughout the growing season. The fall months are usually the driest of the year. This part of the State is rolling and has many streams. More than half of the area is in woodland. The farms on which the records were obtained average somewhat over 100 acres, with about 85 acres of crops. Cotton is the chief money crop, and in many instances practically the only crop sold.

The hill land is sandy clay loam, or sometimes gravelly loam. The type of soil found in the little branch bottoms which are common on many farms is usually silt or clay loam.

Farms in this area are operated by the farmer and his family alone or with the help of a hired man or share cropper. On many farms negro labor is used for part of the year. In general, the upland farms are operated by the farm family with the help of negroes.

SUMMARY OF RESULTS.

To make easy any comparison between the various crops, labor requirements per acre are summarized in one table (Table I). Reference to the detailed tables further on will show that the labor requirements as given here do not represent precisely the full time spent by these men on their crops, but are simply the aggregate of man and mule labor requirements of those standard operations which are performed by all of the farmers.

The reliability of these figures depends partly upon the number of records considered and partly upon the uniformity or lack of uniformity of practices of individual farmers. Where there are a large number of records, lack of uniformity is neutralized. The number of records each on intertilled cowpeas, peanuts (first crop),

and sugar cane is less than 50, yet these figures are considered reliable, because the general practice followed in producing these crops is uniform. The number of records on broadcast cowpeas or peanuts after oats is not sufficient for a very reliable average, though they are believed to give a pretty fair indication of the labor requirements of these crops.

TABLE I.—*Summary of total average requirements per acre for various crops.*

Crop.	Hours per acre.		Number of reports.	Crop.	Hours per acre.		Number of reports.
	Man.	Mule.			Man.	Mule.	
Cotton	100.3	41.5	191	Cowpeas (cultivated)	32.9	25.6	34
Corn	37.0	34.4	198	Cowpeas (uncultivated)	16.6	23.7	10
Peanuts (first crop)	57.8	45.6	36	Oats (for grain)	21.7	24.1	30
Peanuts (after oats)	43.9	36.4	14	Oats (for hay)	16.7	20.8	21
Sweet potatoes	136.9	83.9	53	Meadow hay (native)	17.1	19.4	50
Sugar cane	417.8	195.0	25				

Table II summarizes data for the operations performed on the various crops. The figures are taken from the various tables throughout the bulletin and represent in each case the implement, size, and crew in most common use.

TABLE II.—*Summary of operations, implements, crews, and acreages reported most frequently by hill farmers of Louisiana (677 reports).*

Operation.	Implement or method.	Size.	Furrows.	Men.	Mules.	Acres per day.
Cutting stalks	By hand			1		3.65
Do	Stalk cutter	1 row		1	2	7.75
Flat breaking	Walking plow	10 inches		1	2	1.65
Do	do	12 inches		1	2	2.11
Laying off rows	Shovel cultivator	4-foot row		1	1	7.46
Breaking middles	Middle buster	do	1	1	2	7.74
Do	Shovel cultivator	3-foot row	1	1	1	7.18
Bedding	Middle buster	3½-foot row	1	1	2	6.69
Do	Turn plow	do	2	1	1	3.52
Do	do	4-foot row	2	1	2	3.96
Do	do	3½-foot row	4	1	1	1.64
Do	do	4-foot row	6	1	1	1.18
Rebedding	do	do	2	1	1	3.88
Do	do	do	4	1	1	1.88
Broadcast harrowing	Disk	6 to 8 feet		1	2	5.43
Do	do	do		1	4	11.64
Do	Spike tooth	8 feet		1	2	12.00
Do	Log	7½ feet		1	2	12.50
Harrowing beds	Spike tooth	4 feet		1	1	7.87
Do	do	do		1	2	8.11
Do	Log	6 feet		1	1	13.07
Do	do	6½ feet		1	2	13.49
Do	A harrow	3½-foot row		1	1	6.98
Do	Shovel cultivator	do		1	1	7.06
Planting cotton	Planter	1 row		1	1	6.85
Scraping cotton	Scrape	3½-foot row	2	1	2	3.34
Chopping cotton	By hand	do		1		.97
Hoeing cotton	do	do		1		1.38
Cultivating cotton	Cultivator	do	1	1	1	6.75
Do	do	do	2	1	1	3.48
Cultivating cotton middles	do	do		1	1	6.97
Planting corn	By hand	4-foot row		1		7.45
Do	Planter	1 row		1	1	7.42
Covering corn	By hand	4-foot row		1		8.00
Barring off corn	Turn plow	do	2	1	1	3.77
Cultivating corn	Cultivator	do	1	1	1	7.89
Do	do	do	1	1	2	7.17

TABLE II.—*Summary of operations, implements, crews, and acreages reported most frequently by hill farmers of Louisiana (677 reports)*—Continued.

Operation.	Implement or method.	Size.	Furrows.	Men.	Mules.	Acres per day.
Cultivating corn	Cultivator	4-foot row	2	1	1	3.82
Cultivating corn middles	do	do	1	1	1	7.56
Do	do	do	2	1	2	3.81
Thinning corn	By hand	do		1		2.39
Hoeing corn	do	do		1		2.08
Planting peas in corn	do	do		1		7.18
Do	do	Broadcast		1		15.53
Do	Planter	1 row		1		7.55
Pull and pile corn	By hand			1		3.43
Haul corn from pile	Wagon			2	2	7.52
Pull and haul corn	do			3	2	6.58
Planting peanuts	By hand	3-foot row		1		3.81
Cover peanuts	Turn plow	do	1	1	1	5.91
Hoeing peanuts	By hand	do		1		1.20
Cultivating peanuts	Cultivator	do	2	1	1	2.88
Pulling peanuts	By hand	2-foot row		1		1.08
Shocking peanuts	do			1		1.62
Stacking peanuts	do			1		1.63
Drop sweet potatoes	do	3½-foot row		1		1.13
Set sweet potatoes	do	do		1		1.04
Bar off sweet potatoes	Turn plow	do	2	1	1	3.16
Cultivating sweet potatoes	Shovel cultivator	do	2	1	1	3.14
Hoeing sweet potatoes	By hand	do		1		.74
Cutting sweet potato vines	do			1		.93
Drag sweet potatoes	Turn plow	3–4-foot row		1	1	2.79
Plow up sweet potatoes	Middle buster	3½-foot row		1	2	4.57
Picking up sweet potatoes	By hand			1		.42
Cultivate sugar cane	Shovel cultivator	5-foot row	2	1	1	4.75
Hoeing sugar cane	By hand	do		1		.65
Planting cow peas	do	Broadcast		1		13.50
Do	Planter	1 row		1	1	5.69
Mowing cow peas	Mower	4½ feet		1	1	6.23
Raking cow peas	Rake	9 feet		1	2	14.83
Planting oats	By hand	Broadcast		1		14.11
Mowing oats	Mower	4½ feet		1	1	7.60
Cutting oats	By hand			1		3.24
Binding oats	do			1		3.33
Shocking oats	do			1		7.06
Mowing hay	Mower	4½ feet		1	1	5.83
Raking hay	Rake	10 feet		1	1	12.65
Picking cotton	By hand	[a]636		1		[b]130
Making cane sirup	Crusher and vat			3	2	[c]73.2

[a] Average pounds seed cotton per acre. [b] Pounds seed cotton per day. [c] Gallons per day.

SIGNIFICANCE OF CREW DUTY AND LABOR REQUIREMENTS.

The term "crew" as used here, means the number of men, or men and mules, required to perform an operation. Crews vary in size from one man, or one man and one horse, to several of each. The word "duty" as used here means normal performance, that is, what is actually done under normal conditions, rather than what should or could be done. "Crew duty," then, means the usual amount of work a crew can do in one day at a given operation. It is a normal day's work. For example, if a man hoes on the average an acre of cotton per day, his duty is here given as 1 acre. If a man and team break 2 acres of land per day, then the crew duty for such a crew is 2 acres. If a man uses a four-horse team and hauls 3 cords of wood per day, then the duty for this crew is 3 cords.

There are many factors affecting crew duty, such as stumps, size of fields, topography, ditches, kind of soil, size of mules, character of labor, and climatic conditions. Stumps are perhaps the greatest

hindrance in plowing and cultivating. Where stumps are numerous it is impossible to do a normal day's work. Small fields interfere very much with all kinds of mule work, because such fields usually have short rows which entail a great deal of turning and consequent loss of time. Terraces and ditches also interfere with field work because they often necessitate short rows. Heavy clay soils retard certain operations, particularly that of breaking. On the other hand, where the opposite of these conditions obtains, work will proceed more rapidly than on the average.

The extremes of such conditions on certain farms result in wide variations from the normal, but the influence of all such factors is neutralized to a large extent when a large number of records are considered for a given crop or operation. It is believed that the number of estimates here presented is large enough on most operations to give a reliable average. It will be noted in the tables showing crew duty that the acreages most frequently reported for any one operation, and the number of farmers so reporting, is given. Thus the average acreage may be compared with the acreage most frequently reported. When the number of estimates is not large enough, the statements made regarding the figures involved are qualified.

In the study of tables showing crew duty, it should be borne in mind that all the tables show, incidentally, the duty of machinery and implements as well as the duty of crews.

Labor requirements per acre.—The amount of labor required per acre to perform a given operation depends, of course, upon the crew duty for that operation. Therefore, knowing the duty of crews, it is easy to determine the labor requirement per acre (expressed in days or fractions of days) for each operation which may be performed, and also the average total amount of labor per acre actually spent on the principal operations. It is especially important to know the latter figure in order better to estimate the amount of labor (number of laborers) necessary to handle the crops which it is desired to grow; or, on the other hand, to adjust acreages so that labor requirements for all crops grown will not be beyond the capacity of the available labor on the farm.

SOIL PREPARATION.

Crew duty at preparing land for various crops may be considered without regard to the crop to be grown, because preparation work, in so far as crew duty is concerned, is similar for all crops. Therefore, since preparation work easily lends itself to a separate discussion, crew duty at such work will be dealt with before taking up the discussion of crew duty at such operations as planting, cultivating, and harvesting on each crop. Treating preparation separately makes available a larger number of estimates than if preparation were con-

sidered under each crop heading. Where crew duty is shown for such operations as bedding, harrowing, or dragging beds and laying off rows, the width of the rows is given. At such work the width of the row is the important thing to be considered in determining crew duty.

Stalks are usually cut on all land intended for cotton. Stalk cutting may, therefore, include the cutting of both corn and cotton stalks. The average width of all rows from which stalks are cut is 4 feet. (See Table III.)

FIG. 1.—One man and one mule breaking sod land, followed by a 3-foot disk drawn by two mules.

TABLE III.—*Cutting cotton and corn stalks.*

Method.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
By hand	11	3.65	4 (5 reports).
1-row stalk cutter (1 man and 2 mules)	109	7.75	8 (62 reports).

Breaking follows stalk cutting on all land previously planted to cotton or corn. Most of the reports show this operation as being done by one man and two mules. Where plows of a size smaller than 8 inches are used, the work is done by one man and one mule. (see fig.1.) No figures are given for this size of crew, owing to the small number of reports. (See Table IV.)

TABLE IV.—*Flat breaking with 10 and 12 inch turn plows (one man and two mules).*

Size of plow (inches).	Number of reports.	Average acreage per day.	Acreage reported most frequently.
10	64	1.65	1½ (36 reports).
12	65	2.11	2 (39 reports).

Broadcast harrowing is not very generally practiced in this area. However, enough reports were obtained to give an idea of what has been accomplished by different crews and implements. (See Table V.)

FIG. 2.—Bedding for cotton on land planted to the same crop the previous year. In this instance, contrary to common practice, the stalks have not been cut.

TABLE V.—*Broadcast harrowing.*

Implement.	Size.	Crew.		Number of reports.	Average acreage per day.	Acreage reported most frequently.
		Men.	Mules.			
Disk harrow	6, 7, and 8 feet	1	2	16	5.43	4 (5 reports).
Do	do	1	4	15	11.64	Scattering.
Spike-tooth harrow	5 to 12 feet; average 8 feet	1	2	36	12.00	12 (6 reports). 14 (8 reports).
Log	5 to 12 feet; average 7½ feet	1	2	24	12.50	12 (11 reports).

"Bedding" and "listing" are common terms used in this area for ridging land in preparation for planting. "Bedding" is the term in most general use. Land is nearly always bedded for cotton and a good many follow this practice in preparing land for corn. Bedding is done

with a turning plow by throwing 2, 4, or 6 furrows together. (see fig. 2.) A lister or "middle buster" forms a bed by going once to the row and is in general use. (See Table VI.)

TABLE VI.—*Bedding.*

Implement.	Width of row.	Number of furrows.	Crew.		Number of reports.	Average acreage per day.	Acreage reported most frequently.
			Men.	Mules.			
Middle buster	3 feet	1	1	2	14	5.92	6 (11 reports).
Do	3½ feet	1	1	2	26	6.69	7 (14 reports).
Do	4 feet	1	1	2	23	7.39	8 (19 reports).
Turnplow	3 feet	2	1	1	10	2.84	3 (6 reports).
Do	3½ feet	2	1	1	21	3.52	3½ (10 reports).
Do	4 feet	2	1	1	20	3.67	4 (13 reports).
Do	3½ feet	2	1	2	12	3.41	3½ (6 reports).
Do	4 feet	2	1	2	16	3.96	4 (8 reports).
Do	3 feet	4	1	1	23	1.53	1½ (20 reports).
Do	3½ feet	4	1	1	88	1.64	1½ (40 reports). 1¾ (27 reports).
Do	4 feet	4	1	1	80	1.93	2 (57 reports).
Do	4½ feet	4	1	1	10	2.05	2 (7 reports).
Do	4 feet	6	1	1	10	1.18	Scattering.

In a number of cases rebedding is practiced. This may be done for any of several reasons, namely, further stirring of the soil, throwing up a bigger ridge, and covering seed or fertilizer. It will be noted that the acreage per day varies slightly from that of bedding. (See Table VII.)

TABLE VII.—*Rebedding with turnplow—one man and one mule.*

Width of rows.	Number of furrows.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
3 feet	2	11	2.86	3 (8 reports).
3½ feet	2	34	3.43	3½ (19 reports).
4 feet	2	48	3.88	4 (37 reports).
4½ feet	2	10	4.14	4 (6 reports).
3½ feet	4	21	1.71	1¾ (10 reports).
4 feet	4	26	1.88	2 (19 reports).

Some form the bed by throwing two furrows together with a turning plow and then breaking out the middle with a middle buster or shovel, going once to the row. (See Table VIII.)

TABLE VIII.—*Breaking middles—one furrow.*

Implement.	Width of row.	Crew.		Number of reports.	Average acreage per day.	Acreage reported most frequently.
		Men.	Mules.			
Middle buster	3½ feet	1	2	17	7.00	7 (9 reports).
Do	4 feet	1	2	24	7.74	8 (15 reports).
Shovel cultivator	3 feet	1	1	10	6.08	6 (5 reports).
Do	3½ feet	1	1	22	7.18	7 (12 reports).
Do	4 feet	1	1	21	7.52	8 (13 reports).

Laying off rows (figure 3) is an operation requiring one trip to the row, usually with a one-mule implement. (See Table IX.)

TABLE IX.—*Lay-off rows with shovel cultivator—one man and one mule.*

Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
2½ feet	12	4.91	5 (8 reports).
3 feet	27	5.95	6 (22 reports).
3½ feet	83	6.67	7 (46 reports).
4 feet	96	7.46	8 (57 reports).
4½ feet	12	7.75	8 (6 report).

FIG. 3.—One man and one mule laying off rows with a single shovel cultivator. The man in the background is planting in the rows already made.

Harrowing or dragging beds is an operation performed on practically every farm, because cotton and sweet potatoes are always planted on beds, and, frequently, both corn and peanuts. After the beds are formed it is a common practice to harrow or drag them to improve the seed bed. Sometimes a harrow or drag is wide enough to drag two beds at a time. A few perform this operation for sweet potatoes with a hand rake. However, there are not a sufficient number of estimates to give a reliable average for this method. (See Table X.)

TABLE X.—*Harrowing beds.*

Implement.	Width of row.	Crew.		Number of reports.	Average acreage per day.	Acreage reported most frequently.
		Men.	Mules.			
Spike-tooth harrow	4 feet	1	1	16	7.87	8 (12 reports).
Do	4 feet	1	2	17	8.11	8 (6 reports).
Do	Avg. 8 feet	1	2	15	13.30	14 (6 reports).
Log	Avg. 6 feet	1	1	26	13.07	12 (8 reports). 14 (6 reports).
Do	Avg. 6½ feet	1	2	36	13.49	12 (12 reports). 14 (8 reports).
A harrow	Avg. 3½ feet	1	1	99	6.98	6 (33 reports). 8 (31 reports).
Shovel cultivator	Avg. 3¾ feet	1	1	72	7.06	6 (26 reports). 8 (22 reports).

Commercial fertilizer is applied sometimes before planting and sometimes after, and occasionally both before and after planting. Perhaps the most common practice is to distribute the fertilizer and bed on it, then plant. Ordinarily only one application is made, about 200 pounds per acre. (See Table XI).

TABLE XI.—*Fertilizing before and after planting.*

Method.	Width of row.	Crew.		Number of reports.	Average acreage per day.	Acreage reported most frequently.
		Men.	Mules.			
By hand	3½ feet	1		31	5.66	5 (5 reports). 6 (11 reports).
Do	4 feet	1		23	5.86	6 (8 reports).
Do	4½ feet	1		10	6.16	6 (5 reports).
Distributor	3 feet	1	1	23	5.42	5 (9 reports). 6 (13 reports).
Do	3½ feet	1	1	72	6.61	5 (29 reports). 7 (34 reports).
Do	4 feet	1	1	99	7.25	7 (22 reports). 8 (39 reports).
Do	4½ feet	1	1	14	7.31	8 (6 reports).
Do	5 feet	1	1	12	8.33	Scattering.
Do	6 feet	1	1	10	9.11	Do.

OPERATIONS ON INDIVIDUAL CROPS.

The crops most commonly grown in this region are cotton, corn, sweet potatoes, and cowpeas. These four crops are grown by nearly every farmer. Most farmers, however, grow other crops also, though the acreage is generally small. Thus, in addition to the above-mentioned staple crops, the farmer may grow oats or meadow hay as feed crops, and sometimes sorghum or peanuts. A few make sorghum sirup for market, and in certain communities peanuts are grown to a considerable extent for the market. On some of these farms sugar cane is grown for sirup. All of this sirup, except what is needed for home consumption, is sold. Occasionally watermelons are grown in small areas. Cotton is the only money crop of consequence generally grown. Occasionally a farmer will grow native

meadow hay as a money crop. Sweet potatoes are grown primarily for home use, but when there is a surplus it usually is for sale.

In the following pages each crop is considered separately. Under each of the crops crew duty and labor requirements per acre are given. Under crew duty, where a sufficient number of reports were obtained to give reliable averages, a table is presented for each crop, showing the labor requirement per acre for each separate operation from the beginning of preparation of the land until the crop is marketed.

COTTON.

Crew duty at preparation work having been shown, the first operation to be considered under each crop is planting. Cotton is nearly always planted with a planter, although it is sometimes planted by hand. However, all the records at hand for this operation are for planter work. (See Table XII.)

TABLE XII.—*Planting cotton with 1-row planter—one man, one mule.*

Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
3 feet	12	5.95	6 (11 reports).
3½ feet	96	6.83	7 (46 reports).
4 feet	74	7.50	7 (20 reports). 8 (39 reports).

In determining crew duty at cultivating operations, such work has been divided into three or four classes for each crop. "Scraping" is one of these. This is an operation performed on cotton before hoeing. This work is done with a one-mule implement which is run at a slight depth and throws the weeds and grass away from the row into the middles, thus cleaning the side of the bed or row and reducing its width preparatory to thinning or hoeing the crop. "Barring off" is an operation which applies more particularly to corn and sugar cane, although cotton is sometimes barred off. This is usually done with a one-mule turning plow, and the purpose is the same as that in scraping—that is, to throw weeds and grass to the middles and reduce the width of the bed to be hoed. This operation is usually followed by hoeing. (See Table XIII.)

TABLE XIII.—*Scraping cotton—one man, two mules, 2 furrows.*

Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
3½ feet	57	3.34	3 (22 reports). 3½ (22 reports).
4 feet	31	3.62	4 (14 reports).

The first hoe work on cotton is generally spoken of as "chopping." Chopping means chopping to a stand or thinning out. (see fig. 4.) Subsequent hoe work is usually spoken of as "hoeing." Hoeing is an operation primarily intended for removing grass rather than for thinning to a stand. (See Table XIV.)

FIG. 4.—Negroes chopping cotton. The plants when they come up are too close together, and are thinned out to the proper distance with a hoe.

TABLE XIV.—*Chopping and hoeing cotton—one man.*

	Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
First time	3 feet	12	0.82	1 (6 reports).
Do	3½ feet	97	.97	1 (47 reports).
Do	4 feet	76	.99	1 (43 reports).
Second time	3 feet	12	1.18	1 (5 reports).
Do	3½ feet	82	1.38	1 (35 reports). 1½ (15 reports).
Do	4 feet	63	1.40	1 (18 reports). 1½ (21 reports).
Third time	3½ feet	13	1.38	1 (9 reports).

Crew duty at cultivating has been separated according to the method employed, for some begin to cultivate without previously scraping, while others cultivate after scraping.

Cultivating middles has been considered separately from other cultivating, because there is nothing to interfere with this work, as

in cultivating the row. The operation of cultivating middles, or breaking middles, is one which may require from one to three furrows with a single plow or one-horse harrow. However, in Table XV, where this operation appears, all middle work is one furrow or single trip to the row.

TABLE XV.—*Cultivating cotton with single plow or harrow.*

	Width of row.	Crew.		Number of reports.	Average acreage per day.	Acreage reported most frequently.
		Men.	Mules.			
Cultivating cotton without scraping:						
1 furrow	3½ feet	1	1	10	6.75	Scattering.
Do	4 feet	1	1	10	7.80	8 (9 reports).
Do	do	1	2	10	6.85	6 (5 reports).
2 furrows	3½ feet	1	1	40	3.48	3½ (23 reports).
Do	4 feet	1	1	34	3.35	4 (24 reports).
Cultivating following scraping:						
2 furrows	3½ feet	1	1	54	3.33	3 (18 reports). 3½ (21 reports).
Do	4 feet	1	1	32	3.70	4 (17 reports).
Cultivating middles:						
1 furrow	3 feet	1	1	10	6.00	6 (10 reports).
Do	3½ feet	1	1	70	6.97	6 (22 reports). 7 (29 reports).
Do	4 feet	1	1	45	7.28	7 (6 reports). 8 (28 reports).

The first operation in harvesting the cotton crop is picking. The records available on this work indicate that on the average an adult will pick 130 pounds per day in cotton averaging 636 pounds of seed cotton per acre. Most individuals can easily pick more than this, but when the work of a large number of pickers (men and women, but no children) is averaged for the whole picking season, it is found that 130 pounds is a normal day's work. There are many individuals who can easily pick 250 to 300 pounds per day, but the average of even these pickers for the whole season is far below such figures. High averages are made by individuals only during the first picking or by working long hours. Many pickers do not work full days on account of heavy dews in the morning.

HAULING COTTON.

Hauling to the gin is the second operation in harvesting the cotton crop. (See Table XVI.) In many instances hauling to the gin and marketing can not be separated, because the gin patronized is located in the town where the crop is sold. The cotton may be sold at the gin yard or hauled immediately after ginning to a near-by merchant or cotton buyer, thus saving a trip to town for the purpose of selling the crop. A large part of the time required for hauling cotton to the gin is consumed in waiting one's turn at the gin. (See fig. 5.) In marketing, a considerable amount of time is spent in seeking the highest bidder, weighing the cotton, and settling accounts.

TABLE XVI.—*Hauling cotton—one man and two mules.*

	Length of haul.	Bales per day.	Number of reports.	Number of bales per day most frequently reported.
Hauling to gin	Less than 1 mile	2.24	33	2 (17 reports).
Do	1 to 2 miles	1.94	35	2 (26 reports).
Do	2 to 3 miles	1.77	31	2 (24 reports).
Do	3 to 4 miles	1.68	22	1 (8 reports). 2 (13 reports).
Do	4 to 5 miles	1.00	8	1 (8 reports).
Do	5 to 10 miles	1.45	11	Do.
Hauling to gin and market	1 to 2 miles	2.00	10	2 (10 reports).
Do	2 to 3 miles	1.66	10	2 (6 reports).
Do	4 to 5 miles	1.08	12	1 (11 reports).
Hauling to market	Less than 1 mile	2.50	8	2 (5 reports).
Do	1 to 2 miles	2.74	12	2 (6 reports).
Do	3 to 4 miles	2.37	8	Do.
Do	5 to 6 miles	2.72	18	2 (12 reports).
Do	7 to 8 miles	2.70	10	2 (6 reports).
Do	9 to 10 miles	2.37	9	2 (5 reports).

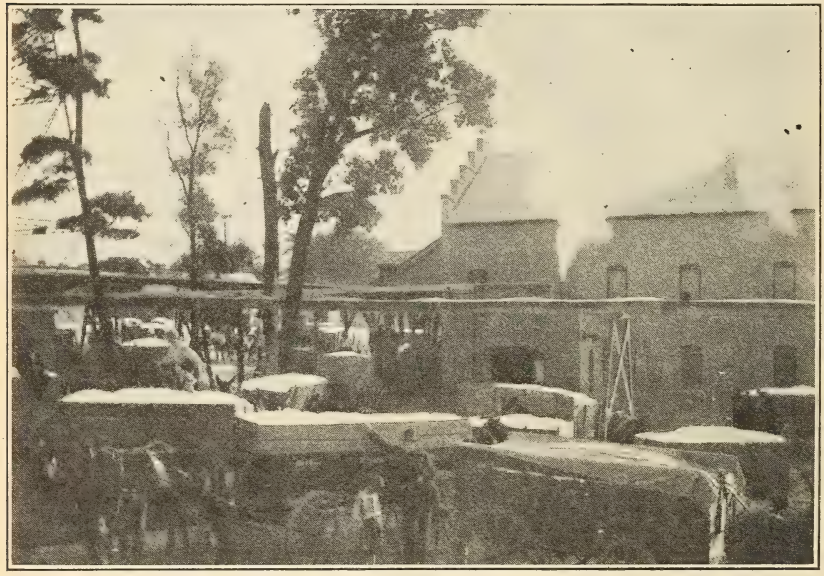

FIG. 5.—Cotton gin, showing a large number of men waiting their turn at the gin. Much time is lost in this way.

LABOR REQUIREMENTS OF COTTON.

The man and mule labor requirements of cotton by operations—that is, the amount of man and mule labor required when all of the operations are performed, are shown in Table XVII.

To determine by this table the amount of labor per acre required on cotton for a given farm, simply foot the figures for the operations performed on that farm.

It will be noticed that the greater part of the man labor is required for picking, the next largest for hoe work, and the next for culti-

vating. Man labor varies with the yield because picking is the slowest operation of all.

TABLE XVII.—*Labor requirements per acre of cotton, by operations.*

Operations.	Average hours per acre.		Number of reports.	Operations.	Average hours per acre.		Number of reports.
	Man.	Mule.			Man.	Mule.	
Cut stalks	1.7	2.4	54	Scrape	2.9	3.0	104
Break	6.3	12.1	46	Chop and hoe (average 2 times)	20.0	.....	191
Broadcast harrow	1.8	5.2	24				
Lay off rows	1.5	1.6	88	Cultivate (average 4 times)	13.8	14.6	191
Bed	4.4	5.3	185				
Rebed	4.1	4.7	97	Cultivate middles (average 2 times)	3.6	3.7	138
Break middles	1.5	2.1	65				
Fertilize	1.6	1.4	135	Pick	46.7	.....	191
Harrow or drag beds	1.3	1.6	164	Haul to gin and market	2.7	5.4	182
Plant	1.4	1.4	191	Market	1.9	3.9	73

CORN.

Corn planting as a whole is more rapid than cotton planting, partly because the rows are wider, and partly because less time is lost in refilling the planter. Planting by hand is considerably slower than planting with a planter, as there is the extra work of covering the seed, which requires in itself as much time as planting with a planter. (See Table XVIII.)

TABLE XVIII.—*Planting corn.*

Method.	Width of row.	Crew.		Number of records.	Average acreage per day.	Acreage reported most frequently.
		Men.	Mules.			
By hand	3½ feet	1	.....	21	6.85	7 (13 reports).
Do	4 feet	1	.....	48	7.45	8 (28 reports).
Do	4½ feet	1	.....	11	7.72	8 (5 reports).
One-row planter	3½ feet	1	1	12	6.75	7 (6 reports).
Do	4 feet	1	1	57	7.42	8 (38 reports).
Do	4½ feet	1	1	14	8.07	8 (9 reports).
Do	5 feet	1	1	12	9.66	10 (6 reports).
Do	6 feet	1	1	11	10.27	12 (5 reports).

TABLE XIX.—*Covering corn after planting with shovel cultivator or turnplow—one man, one mule, and one furrow.*

Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
3½ feet	20	7.10	7 (12 reports).
4 feet	46	8.00	8 (29 reports).
4½ feet	10	8.22	8 (6 reports).

Crew duty at the various operations in cultivating corn is shown in Tables XX to XXIII. The duty per day with cultivators at first cultivation and subsequent cultivations is practically the same.

Sometimes corn is harrowed broadcast with a section harrow before cultivating, but the number of farmers who do this is so small that no figures for this operation are presented. It will be noted that the rate of work in cultivating corn middles is practically the same as for the like operation on cotton.

TABLE XX.—*Crew duty at barring off corn with turnplow—two furrows, one man, and one mule.*

Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
3½ feet	16	3.40	{3 (6 reports). {3½ (7 reports).
4 feet	24	3.77	4 (16 reports).
4½ feet	10	4.11	4 (5 reports).

TABLE XXI.—*Cultivating corn before and after barring off—one man, one mule, two furrows.*

Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
3½ feet	19	3.39	{3 (7 reports). {3½ (8 reports).
4 feet	26	4.08	4 (16 reports).
4½ feet	10	4.11	4 (5 reports).

TABLE XXII.—*Cultivating corn without barring off.*

	Width of row.	Number of reports.	Crew.		Average acreage per day.	Acreage reported most frequently.
			Man.	Mules.		
1 furrow	4 feet	19	1	1	7.89	8 (14 reports).
Do	do	17	1	2	7.17	{7 (5 reports). {8 (7 reports).
2 furrows	3½ feet	15	1	1	3.63	3½ (9 reports).
Do	4 feet	70	1	1	3.82	4 (40 reports).
Do	4½ feet	12	1	1	4.08	4 (6 reports).
Do	5 feet	11	1	1	4.68	5 (6 reports).
Do	6 feet	10	1	1	4.94	Scattering.

TABLE XXIII.—*Cultivating corn middles.*

	Width of row.	Crew.		Number of reports.	Average acreage per day.	Acreage reported most frequently.
		Man.	Mules.			
1 furrow	3½ feet	1	1	25	6.96	{7 14(reports). {6 (6 reports).
Do	4 feet	1	1	72	7.56	{7 (12 reports). {8 (49 reports).
Do	4½ feet	1	1	12	8.33	8 (6 reports).
2 furrows	4 feet	1	2	22	3.81	4 (15 reports).

In this area corn is frequently gone over twice with the hoe, the first time for the purpose of thinning and the second time for the purpose of hoeing out weeds and grass.

TABLE XXIV.—*Thinning and hoeing corn—one man.*

	Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
Thinning	3½ feet	13	1.80	2 (8 reports).
Do	4 feet	44	2.39	2 (13 reports). 3 (10 reports).
Do	4½ feet	10	2.50	Scattering.
Hoeing	3½ feet	13	1.57	1 (6 reports). 1 (10 reports).
Do	4 feet	43	2.08	2 (11 reports). 3 (10 reports).
Do	4½ feet	14	2.44	Scattering.

About half of the farmers of this area sow cowpeas broadcast in corn at "laying-by" time or plant them in rows either during the

FIG. 6.—Cowpeas planted in rows growing in corn. By planting peas in this way the land is enriched and extra feed obtained for stock.

cultivating period or at laying-by time. (See fig. 6.) Row planting may be done by hand or with a planter. Some plant peas in rows and others sow them broadcast. (See Table XXV.)

TABLE XXV.—*Planting peas in corn.*

Method.	Width of row.	Crew.		Number of reports.	Average acreage per day.	Acreage reported most frequently.
		Men.	Mules.			
By hand in rows	3½ feet	1		15	6.23	7 (5 reports).
Do	4 feet	1		44	7.18	8 (25 reports).
Do	4½ feet	1		10	6.80	8 (5 reports).
By hand broadcast	4 feet	1		15	15.53	15 (7 reports).
1-row planter	do	1	1	10	7.55	Scattering.

In this area practically the only method of harvesting corn is to snap the ears from the stalks without shucking, which is usually referred to as "pulling corn." Some pull and throw the corn on the ground in small heaps and later pick it up and haul it in. Others pull the corn and throw it into a wagon direct, and as soon as a load is pulled it is hauled to the barn. In cases in which corn is pulled and thrown on the ground one man has been counted as a crew. Crews of from one to three men are generally used when hauling in corn which has been thrown on the ground, and crews of two or three men are most commonly used for pulling and hauling. (See Table XXVI.) A few four-men crews were found, but the number of such crews is not sufficient to give a reliable average.

TABLE XXVI.—*Harvesting corn.*

Method.	Bushels per acre.	Crew.		Number of reports.	Average acreage per day.	Acreage reported most frequently.
		Men.	Mules.			
Pull and throw in piles	11 to 20	1	.....	54	3.43	3 (16 reports). 5 (8 reports).
Do	21 to 40	1	.....	10	2.55	
Haul from piles	11 to 20	1	2	10	4.82	Scattering.
Do	11 to 20	2	2	33	7.52	7 (8 reports). 8 (7 reports).
Do	11 to 20	3	2	15	8.95	Scattering.
Pull and haul	11 to 20	2	2	11	5.72	6 (5 reports).
Do	11 to 20	3	2	60	6.58	5 to 8 (31 reports).
Do	21 to 40	3	2	28	4.78	4 to 5 (14 reports).

LABOR REQUIREMENTS OF CORN.

The amount of labor required at each operation in the production of corn is shown in Table XXVII. It will be noticed that much of the work on corn is one-mule work. This is indicated by the fact that man labor and mule labor are practically the same. The term "gather" as used in this table includes pulling and hauling corn from the field to the barn; it also includes pulling and throwing on the ground and then hauling in, and thus it is a term which includes more than the term "pulling." "Gather" is commonly used in this area to cover all the operations of harvesting. Cutting corn is an operation which is very seldom performed in this area.

TABLE XXVII.—*Labor requirements per acre on corn.*

Operation.	Hours per acre.		Number of reports.	Operation.	Hours per acre.		Number of reports.
	Men.	Mules.			Men.	Mules.	
Cut stalks	1.4	2.4	52	Plant	1.9	1.3	198
Break	6.2	11.9	72	Cover corn	1.3	1.3	79
Broadcast harrow	1.5	3.6	30	Fertilize after planting	1.6	.9	60
Lay off rows	1.4	1.5	128	Bar off	2.8	2.8	61
Bed	4.7	5.5	169	Cultivate	10.5	9.9	193
Rebed	3.6	4.1	81	Cultivate middles	3.6	3.7	156
Break middles	1.3	1.9	54	Thin and hoe	6.3	.....	160
Harrow	1.7	3.4	87	Plant peas	1.3	.4	127
Fertilize before planting	1.6	1.0	68	Gather	5.7	3.5	198

PEANUTS.

Planters are not in common use for planting peanuts, chiefly because of the necessity of shelling the peanuts before they can be planted with a planter. As with corn planted by hand, the peanuts must be covered. This extra amount of labor no doubt makes it more profitable to use a planter for this operation, even though the labor of shelling is involved. When the peanuts were planted in 3-foot rows it was found that it would require the labor of one man and a mule, with a shovel cultivator or turn plow turning one furrow, to cover an average of 5.9 acres per day. (See Table XXVIII.)

TABLE XXVIII.—*Planting peanuts by hand after oats and as a first crop—one man.*

Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
2½ feet	11	3.05	Scattering.
3 feet	19	3.81	Do.

The cultivating operations for peanuts are barring off, harrowing the rows, cultivating, and cultivating middles. Not enough reports were obtained to give reliable averages for any operation except cultivating. (See Table XXIX.)

TABLE XXIX.—*Cultivating peanuts after oats and as a first crop—one man, one mule, and two furrows.*

Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
2½ feet	12	2.45	2½ (5 reports).
3 feet	18	2.88	3 (14 reports).
3½ feet	10	3.30	Scattering.

According to all estimates obtained on hoeing peanuts, one man will hoe 1.2 acres with rows 3 feet apart. This crop is hoed only once.

There are several methods of harvesting peanuts. The most common practice is to pull the vines by hand, then shock them. Some plow them up or loosen them with a plow, after which they are shocked. After the shocks have cured for from 3 to 6 weeks, the crop is hauled to the barn or thrasher. Some feed the entire plant, including the nuts. Where peanuts are thrashed, it is quite common to bale the vines or hay after they have passed through the thrasher. Some, instead of harvesting the entire crop, cut the tops off with a mowing machine and rake the hay, thus saving a hay crop only. When this is done, the common practice is to turn hogs into the field for the purpose of harvesting the peanuts. (See Table XXX.)

TABLE XXX.—*Harvesting peanuts.*

Operation.	Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
Pulling up peanuts	2 feet	18	1.08	1 (9 reports).
(1 man)	2½ feet	10	1.44	1 (5 reports).
Shocking (1 man)		18	1.62	Do.
Stacking (1 man)		13	1.63	Do.
Hauling to barn:				
2 men and 2 mules		15	5.03	4 (5 reports).
3 men and 2 mules		10	6.33	Scattering.

LABOR REQUIREMENTS OF PEANUTS.

The labor required at each operation on peanuts grown either as a first crop or as a second crop after oats is shown in Table XXXI. Preparation of the land for this crop is similar to that for cotton or corn. Harvesting operations require somewhat more work than corn harvest, but less than cotton harvest. When grown as a second crop after oats, peanuts require less labor than when grown as a first crop, because they are planted later and require fewer cultivations.

TABLE XXXI.—*Labor requirements per acre of peanuts, by operations.*

Operation.	Peanuts as first crop.			Peanuts after oats.		
	Hours per acre.		Number of reports.	Hours per acre.		Number of reports.
	Man.	Mule.		Man.	Mule.	
Break	6.4	12.3	15	6.3	12.7	5
Harrow	2.2	5.6	21			
Do				1.2	1.8	6
Bed	4.8	5.5	23			
Rebed	3.9	4.8	15			
Break middles	2.0	1.5	14			
Center furrow	1.9	1.9	28	1.8	1.8	12
Plant	3.2	1.9	36	2.8		14
Cover	1.6	1.6	23	3.0	3.2	12
Cultivate (average two times)	9.5	9.9	36	6.3	7.2	14
Cultivate middles	2.4	2.4	12			
Hoe	10.7		23			
Plow up	2.2	2.9	13	2.1	3.9	4
Pull up	10.7		29	8.8		9
Shock	9.9		13			
Haul	6.3	6.3	32	5.2	6.0	13
Stack	8.4		11			
Thrash	6.0	2.6	15	5.0	4.0	4
Market	2.6	5.2	14	3.6	5.9	4

SWEET POTATOES.

In planting sweet potatoes there are really three operations—pulling the plants, dropping in rows, and setting out. (See Table XXXII.) There were not a sufficient number of estimates on pulling to give a reliable average.

TABLE XXXII.—*Dropping and setting sweet potato plants.*

	Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
Dropping (1 man)	3 feet	20	1.30	1 (8 reports).
	3½ feet	24	1.13	1 (11 reports).
Setting (1 man)	3 feet	20	1.17	1 (8 reports).
	3½ feet	24	1.04	1 (12 reports).

The various operations in cultivating sweet potatoes, with crew duty at each, are shown in Table XXXIII.

TABLE XXXIII.—*Cultivating sweet potatoes.*

Operation.	Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
Barring off with turn plow (2 furrows, 1 man and 1 mule).	3 feet	10	3.00	3 (10 reports).
	3½ feet	12	3.16	3 (6 reports).
Cultivating (2 furrows, 1 man and 1 mule)	3 feet	41	3.00	3 (11 reports).
	3½ feet	21	3.14	Do.
Hoeing (1 man)	3 feet	16	.70	0.5 (7 reports).
	3½ feet	15	.74	Do.

Turning vines is an operation which is necessary when it is desired to cultivate the crop after the vines have reached considerable length. Otherwise, the plow would break and tear away many of them. No figures are presented for this operation, however, as the number reporting was not large enough to give a reliable average.

Some method of removing the vines is usually employed before plowing up sweet potatoes. They may be cut and raked off or they may be dragged off. Potatoes are generally plowed up with a middle buster. However, some growers still use the turning plow, going twice or four times to the row. (See Table XXXIV.) There are so few who market potatoes in this area that no figures for this operation are given.

TABLE XXXIV.—*Harvesting sweet potatoes.*

Operation.	Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
Cutting vines (1 man)	3 to 4 feet	14	0.93	1 (7 reports).
Dragging vines, turn plow (1 man and 1 mule).	do	12	2.79	Scattering.
Plowing up, middle buster (1 man and 2 mules)	3 feet	13	4.38	4 (5 reports).
	3½ feet	19	4.57	4 (5 reports). 6 (6 reports).
Picking up (1 man) (average bushels per acre, 135)		53	.42	0.33 (16 reports). 0.50 (12 reports).
Hauling to barn (yield per acre):				
2 men and 2 mules 40 to 200 bu		23	1.62	Scattering.
3 men and 2 mules 40 to 210 bu		13	1.87	Do.

LABOR REQUIREMENTS OF SWEET POTATOES.

The sweet-potato crop requires more labor than cotton. The number of operations is large, and some of them, such as breaking and bedding, may be done two, three, or even four times before the plants are set out. This accounts for the large labor requirements for these operations as shown in Table XXXV. Planting, hoeing, and harvesting each requires a considerable amount of hand labor. The crop is usually hoed once.

TABLE XXXV.—*Labor requirements per acre on sweet potatoes, by operations.*

Operation.	Hours per acre.		Number of reports.	Operation.	Hours per acre.		Number of reports.
	Man.	Mule.			Man.	Mule.	
Break	14.4	10.0	40	Cultivate (average, 1¾ times)	8.1	8.3	49
Bed	7.5	8.0	51	Cultivate middles	2.8	2.8	29
Rebed	6.0	6.5	14	Hoe	19.7	.....	51
Drag beds	2.5	1.2	38	Cut vines	12.4	.....	15
Center furrow	1.7	1.7	14	Drag vines	3.6	4.5	26
Fertilize	3.2	2.4	22	Plow up	4.7	6.9	53
Drop plants	9.2	.....	53	Pick up	26.4	.....	53
Set plants	10.4	.....	53	Haul	21.0	15.6	52
Bar off	3.2	3.2	25				

SUGAR CANE.

With a limited number of records on sugar cane and the different-sized crews (2 men and 2 mules to 6 men and 2 mules), it was not possible to obtain enough estimates to give a reliable average on the planting operation.

Also in the harvesting operation, because of the variety of methods employed, there were not enough records obtained on any one to give reliable averages.

Table XXXVI presents the average crew duty at cultivating sugar cane.

TABLE XXXVI.—*Cultivating sugar cane.*

Method.	Width of row.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
Cultivator (1 man, 1 mule, 2 furrows)	5 feet	10	4.75	5 (4 reports).
Hoeing (1 man)	...do	10	.65	0.5 (5 reports).

The crew duty at making sirup is shown in Table XXXVII. The crew duty as shown in this table includes all of the crew necessary for grinding the cane and evaporating the sirup.

TABLE XXXVII.—*Grinding cane.*

Gallons.	Crew.		Number of reports.	Average (gallons per day).	Number of gallons reported most frequently.
	Man.	Mule.			
40 to 100	3	2	10	73.2	75 (3 reports).
60 to 100	4	2	10	76.0	80 (4 reports).

LABOR REQUIREMENTS OF SUGAR CANE.

Sugar cane requires a very large amount of labor per acre, the amount at each operation being shown in Table XXXVIII. Planting, which includes digging seed cane from the beds where it was buried during the winter, hauling, laying in the rows, and covering, requires nearly 5 days' man labor and about 2 days' mule labor per acre. The heaviest labor demand of this crop is at harvest time. All of the operations from cutting to sirup making are slow when measured by the acreage covered per day.

Preparation of the land and cultivation do not differ materially in kind or amount from such work on cotton, except that cane hoeing is slower work than cotton hoeing. Furthermore, cane is nearly always hoed twice, and some hoe it three times. The increase in required labor comes chiefly at planting time and harvesting time.

TABLE XXXVIII.—*Labor requirements per acre of sugar cane, by operations.*

Operation.	Hours per acre.		Number of reports.	Operation.	Hours per acre.		Number of reports.
	Man.	Mule.			Man.	Mule.	
Break	6.8	10.4	9	Cultivate middles (average 2 times)	7.7	7.9	16
Bed	7.7	9.8	19	Hoe (average 2 times)	43.7	.....	25
Rebed	6.6	6.6	7	Strip and top	65.5	.....	15
Center furrow	1.2	1.2	9	Cut	26.6	.....	15
Fertilize	3.7	2.6	20	Haul	30.8	46.4	17
Plant	48.8	21.1	25	Grind and make sirup	126.5	61.6	25
Cover	3.0	3.0	14	Market	28.1	56.2	11
Bar off	2.8	2.8	17	Bed seed cane	27.1	3.3	11
Cultivate (average 3 times)	16.4	16.4	25				

COWPEAS.

Cowpeas are planted both with planters in rows and broadcast by hand. (See fig. 7.) In the first case the crop is given some cultivation, while in the latter it is allowed to grow without any cultivation. The crew duty at planting is shown in Table XXXIX.

TABLE XXXIX.—*Planting cowpeas.*

Method.	Width of row.	Crew.		Number of reports.	Average acres per day.	Acres reported most frequently.
		Men.	Mules.			
In rows:						
1-row planter	2½ feet	1	1	10	4.87	5 (5 reports).
Do	3 feet			13	5.69	6 (8 reports).
Broadcast:						
By hand	Broadcast	1		10	13.50	Scattering.

FIG. 7.—One man and one mule planting peas with a cotton planter. The rows have been previously laid out with a bulltongue.

About one man in three plants by hand. It will be noted that the rate of broadcasting by hand is considerably more per day than for planter work.

Cowpeas, whether planted in rows and intertilled or sown broadcast, are harvested in the same manner. Therefore, the duty of crews, at harvesting both the cultivated and the uncultivated crops, is shown in the same table (Table XL). This table shows acres cut per day with mowers of different widths. When one has a small acreage planted in rows and has no mowing machine, he sometimes cuts the vines by hand instead of hiring a mower. The men without mowers also rake the hay by hand. Hauling is most often done by two men and a team, though a three-man crew is used. Sometimes hauling is done by one man. The duty of these crews is shown in acres per day.

TABLE XL.—*Harvesting cowpeas, either intertilled or broadcast.*

Operation.	Width of implement.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
Mowing:				
1 man and 1 mule	4½ feet	25	6.23	{6 (7 reports). 7 (8 reports).
Do	5 feet	10	6.99	Scattering.
Raking:				
1 man and 2 mules	8 feet	10	12.44	Do.
Do	9 feet	18	14.83	16 (10 reports).
Hauling to barn:				
2 men and 2 mules		21	4.37	Scattering.
3 men and 2 mules		15	5.16	Do.

LABOR REQUIREMENTS OF COWPEAS.

The labor requirements per acre on cowpeas are given in Table XLI. About half of the men planting peas prepare the land by breaking, harrowing, and laying off rows, while the others bed the and instead. Planting is done mostly with a planter. However, an extra trip is sometimes made to cover the seed. Cultivating amounts to only one-half day per acre.

TABLE XLI.—*Labor requirements per acre on cowpeas.*

Operation.	In rows intertilled.			Broadcast.		
	Hours per acre.		Number of reports.	Hours per acre.		Number of reports.
	Man.	Mule.		Man.	Mule.	
Break	6.7	10.6	17	7.5	9.7	9
Disk				2.2	7.6	4
Harrow	1.5	2.6	14			
Do				1.5	4.4	10
Lay off rows	2.2	2.6	15			
Bed	3.2	4.4	17			
Plant	1.9	1.6	34	1.0	.6	10
Cultivate	5.2	5.0	32			
Cultivate middles	2.1	2.1	10			
Cut	2.4	2.7	32	1.5	3.0	10
Rake	2.1	1.2	31	.7	1.4	10
Haul	5.4	5.5	30	4.8	4.5	10

OATS.

In this area oats are sown for grain and hay. The usual method of planting is by hand, some few using drills. Oats when sown by hand require covering afterwards. (See Table XLII.)

TABLE XLII.—*Planting oats for grain and hay by hand (1 man).*

Bushels per acre.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
1½	16	12.50	Scattering.
2	17	14.11	12 (8 reports).

In this region oats are usually either cut by hand, bound and fed in the sheaf, or cut with a mower, raked, and fed as a hay crop. Oats are very seldom thrashed as a grain crop. Binders are very seldom used. (See Table XLIII.)

TABLE XLIII.—*Harvesting oats.*

	Crew.		Number of reports.	Average acreage per day.	Acreage reported most frequently.
	Men.	Mules.			
Mowing (4½-foot cut)	1	1	10	7.60	Scattering.
Cutting by hand	1	.....	25	3.24	3 (11 reports).
Binding by hand	1	.....	24	3.33	3 (12 reports).
Shocking by hand	1	.....	23	7.06	6 (8 reports).

The duty of two-men crews with a team, hauling oats, is shown in Table XLIV:

TABLE XLIV.—*Hauling oats for grain.*

	Number of reports.	Average acreage per day.	Acreage reported most frequently.
Yield per acre:			
12 to 61 bushels	23	8.04	{6 (5 reports). {10 (5 reports).
Hauling oats for hay to barn:			
½ to 1½ tons	10	7.45	Scattering.

LABOR REQUIREMENTS OF OATS.

The labor required per acre on oats is shown in Table XLV. This table presents figures for operations at preparation work, seeding, and harvesting when the crop is handled either as a grain crop or as a hay crop. When oats are harvested as a grain crop, cutting and binding is usually done by hand. Up to the time of harvest there is no difference in the operations, hence the duplication of figures in the columns down to the time of cutting.

TABLE XLV.—*Labor requirements per acre for oats.*

Operation.	Oats for grain.			Oats for hay.		
	Hours per acre.		Number of reports.	Hours per acre.		Number of reports.
	Man.	Mule.		Man.	Mule.	
Cut stalks	.....	.....	.....	1.2	2.4	8
Break	7.1	10.1	28	7.1	10.1	19
Disk	.....	.....	.....	1.6	6.0	8
Harrow	1.1	2.0	17	1.1	2.0	18
Seed by hand	.7	.....	26	.7	.....	20
Cut by hand	3.3	.....	25	.....	.....	.....
Cut with mower	.....	.....	.....	2.4	1.3	21
Rake	.....	.....	.....	.6	1.2	19
Bind	3.4	.....	24	.....	.....	.....
Shock	1.4	.....	24	.....	.....	.....
Haul	3.6	3.2	30	3.6	3.2	20

MEADOW HAY.

Meadow hay as found on these farms consists of native wild grasses sometimes mixed with a little lespedeza. The duty of a man and team at cutting and raking hay, with the most common width of implement in use, is shown in Table XLVI.

TABLE XLVI.—*Harvesting hay.*

	Width of implement.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
Mowing, 1 man, 1 mule	4½ feet	27	5.83	{5 (6 reports). 6 (7 reports).
Raking, 1 man, 1 mule, twice over	10 feet	23	12.65	12 (13 reports).

Other operations in hay harvesting are hauling loose hay from the field, baling, hauling baled hay, and marketing. Crew duty is given for the first operation only.

TABLE XLVII.—*Hauling hay from field (2 men, 2 mules).*

Yield per acre.	Number of reports.	Average acreage per day.	Acreage reported most frequently.
1 ton and less	13	4.07	4 (5 reports).
1⅛ to 2 tons	11	3.03	Scattering.

LABOR REQUIREMENTS OF HAY.

The labor required per acre for the various operations on meadow hay is shown in Table XLVIII. About three-fifths of those growing hay make two cuttings and about one-fifth make three cuttings.

TABLE XLVIII.—*Labor requirements per acre on meadow hay.*

Operation.	Hours per acre.		Number of reports.	Operation.	Hours per acre.		Number of reports.
	Man.	Mule.			Man.	Mule.	
First cutting	1.6	3.2	50	Haul	6.9	6.0	45
Second cutting	1.6	3.2	30	Press	10.0	2.9	23
Rake	1.6	3.2	50				

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